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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/489,681	01/24/2000	Branko Kovacevic	0100.9901420	6134

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EXAMINER

PHAN, MAN U

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/489,681

Applicant(s)

KOVACEVIC ET AL.

Examiner

Man Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-37 and 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-18 and 30-32 is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-15, 19-29, 33-37 and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment and Argument

1. This communication is in response to applicant's 06/16/2003 Amendment in the application of Kovacevic et al. for a "Method for displaying data" filed 01/24/2000. The proposed amendment to the claims and response have been entered and made of record. Claims 1-2, 5, 15-16, 21-22, 25, 30-32, 35-37 have been amended, claim 10, 38 have been canceled per applicant's request, and new claim 39 has been added. Claims 1-9 and 11-37, 39 are pending in the present application.

In view of applicant's amendment to amend the claims to obviate the objection, examiner has withdrawn the Objections of record.

The rejection of record with respect to claims 1, 21 and 35 under 35 U.S.C. ' 112, second paragraph are hereby removed based on applicant's amendment.

2. Applicant's amendment and argument to the rejected claims are insufficient to distinguish the claimed invention from the cited prior arts or overcome the rejection of said claims under 35 U.S.C. 103 as discussed below. Applicant's argument with respect to the pending claims have been fully considered, but they are not persuasive for at least the following reasons.

3. Applicant's argument with respect to the rejected claims 1, 21 and 35 (page 10) that the cited references do not disclose the "determining a new packet identifier in response to detecting the first splice indicator". However, Miyamoto teaches in Fig. 2 a block diagram illustrated of

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a picture processing system, in which once a splicing flag is detected at the TS header processor 17 (*detecting a first splice indicator*) an interrupt signal is sent to host CPU 11. In response, host CPU 11 determines a new video PID and loads it into the next PID Reg. 18 (*determining a new packet identifier PID*). When the splice flag is again detected (*detecting a second splice indicator*), a signal is sent to present Video PID Reg. 15 to load previously determined video PID from next PID Reg. 18. Once loaded in present Video PID Reg. 15, video PID is used to extract video stream from the Transport Stream (*using the new Packet Identifier in response to the second splice indicator*) (Col. 3, lines 10 plus). In the same field of endeavor, Teichmer discloses a method of splicing video in MPEG-2 transport streams comprising the steps of identifying a first splice point at an anchor frame in a first video stream (*determining a new packet identifier in response to detecting the first splice indicator*), and identifying a second splice point at an anchor frame in a second video stream (Col. 1, lines 33-40). Therefore, the Examiner maintains that the references cited and applied in the last office actions for the rejection of the claims are maintained in this office action.

Claim Rejections - 35 USC ' 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claim 31 recites the limitation "*the first splice countdown value*" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC ' 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 1038 and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-4, 6-9 and 21-24, 26-29 and 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto (US#6,414,954) in view of Teichmer (US#6,380,991).

With respect to claims 1, 21, 35 and 39, both Miyamoto and Teichmer disclose a transport demultiplexor hardware for demultiplexing an MPEG-2 compliant transport stream in according to the essential features of claim 1; the method comprising the steps of: determining a new packet identifier (PID) in response to the splice indicators. In other words, when a splicing point is detected between group of packets, a new PID is generated to replace the present PID value with the next PID value (Fig. 2; Col. 2, lines 41-55). Miyamoto also discloses in Fig. 2 a picture processing system in which The register block 13 includes a present video PID register 15 for storing a present video PID value, a next video PID register 18 for storing a next video PID value, a present audio PID register 16 for storing a present audio PID value, and a next audio PID register 19 for storing a next audio PID value. The host CPU 11 sets the next PID value in each of the next PID registers 18 and 19, which loads the present PID registers 15 and 16, respectively, with the next PIDs after the next PIDs become the present PIDs (*determining a new packet identifier PID*). The TS header processor 17 detects the splicing point to output a PID switching signal, replacing the present PID value with the next PID value (*detecting the splice indicators*). When a splicing point is detected between groups of packets, a PID switch signal is generated to replace the present PID value with the next PID value (*using the new Packet Identifier in response to the second splice indicator*) (Col. 3; lines 10 plus). In the same field of endeavor, Teichmer discloses a method of splicing video in MPEG-2 transport streams comprising the steps of identifying a first splice point at an anchor frame in a first video stream, and identifying a second splice point at an anchor frame in a second video stream (*determining a new packet identifier in response to detecting the first splice indicator*)(Col. 1, lines 33-40).

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Regarding claims 2-4, 22-24 and 36-37, Miyamoto further teaches in Fig. 2 illustrated a block diagram of a picture processing system, includes loading the new PID into a shadow register (next register) after the step of determining and before the step of loading; and the step of using the new PID further comprises loading the contents of the shadow register into a main register, or using the shadow register as the main register (Col. 3, lines 19-34).

Regarding claims 6-7, and 26-27, Miyamoto further teaches the step of detecting the splice indicators includes the sub step of generating the splice interrupts, and the step of determining a new PID occurs in response to the splice interrupts (Col. 1, line 52 to Col. 2, line 11).

Regarding claims 8-9 and 28-29, Teichmer further teaches a method for splicing MPEG-2 transport streams based upon locally available data, in which the first and second splice indicator represent different occurrences of a common event, wherein the common event is the assertion of a splice point (Col. 1, lines 37-46).

One skilled in the art would have recognized the need for effectively and efficiently splicing MPEG-2 transport streams using transport packet demultiplexer hardware, and would have applied Teichmer's teaching of the identifying splicing points in a video transport stream into Miyamoto's novel use of a picture processing for processing a transport stream. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Teichmer's method for splicing MPEG-2 transport streams into Miyamoto's picture processing system and method with the motivation being to provide a method for displaying data in an MPEG-2 video stream.

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9. Claims 5, 11-15, 19-20 and 25, 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto (US#6,414,954) in view of Teichmer (US#6,380,991) as applied to the claim 1 above, and further in view of Chen et al. (US#5,917,830).

With respect to claims 5 and 25, Miyamoto and Teichmer disclose a transport demultiplexor hardware for demultiplexing an MPEG-2 compliant transport stream as described in paragraph 8 above. Miyamoto and Teichmer do not disclose the step of detecting the splice indicator using an adaptation field parser portion of the transport packet demultiplexor hardware. In the same field of endeavor, Chen et al. (US#5,917,830) discloses a method for splicing a secondary packetized data stream with a primary packetized data stream, in which the splice point data includes the splice-related adaptation field data illustrated in Figs. 7a-d. (Col. 17, lines 26-40).

Regarding claims 11-15, Miyamoto teaches in Fig. 3 a block diagram of the TS header processor shown in Fig. 2, in which the TS header analyzer 20 compares the PID of each TS packet in the input transport stream TS with the present video/audio PID value which is set based on the menu information in the transport stream input to the CPU 11 beforehand, and then outputs to the TS header stripper 21 a TS packet having a PID which coincides with the video/audio PID value set in the respective present PID registers 15 and 16. The TS header analyzer 20 analyzes the count of the video/audio splice count-down signal of the TS packet to be supplied to the TS header stripper 21, if the present TS packet includes the video/audio splice count-down signal. The count of the splice count-down signal indicates the status of the present TS packet: a count "0" indicates that the present TS ok packet is the last one of a group of packets, a count "5" indicates that the present TS packet is followed by other five TS packets in

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the same group. In general, a negative value is also used for the count of the splice count-down signal; however, the negative value is not utilized in the present embodiment (Col. 4, lines 18 plus). Chen further teaches using the new PID in response to the second splice indicator wherein the second splice state is based upon a second splice countdown value parsed by the transport packet demultiplexer (Col. 22, lines 8 plus).

Regarding claims 19 and 33, Chen further teaches using the new PID in response to the second splice indicator when the new PID is associated with a first program type (Col. 22, lines 8-31).

Regarding claims 20 and 34, Chen teaches the splicing compressed packetized digital video stream wherein the first program type is mutually exclusive from a second program type, and the second program type is commercials (See the Abstract).

One skilled in the art would have recognized the need for effectively and efficiently splicing MPEG-2 transport streams using transport packet demultiplexer hardware, and would have applied Chen's detecting the splice indicator using an adaptation field parser, and Teichmer's teaching of the identifying splicing points in a video transport stream into Miyamoto's novel use of a picture processing for processing a transport stream. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Chen's splicing compressed packetized digital video streams, and Teichmer's method for splicing MPEG-2 transport streams into Miyamoto's picture processing system and method with the motivation being to provide a method for displaying data in an MPEG-2 video stream.

Allowable Subject Matter

10. Claims 16-18 and 30, 32 are allowable.

11. Claim 31 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. The following is an examiner's statement of reasons for the indication of allowable subject matter: The prior art of record fails to disclose or suggest the step of detecting a third splice indicator using transport packet demultiplexer hardware, requesting acquisition of a current program management table in response to the third splice indicator; requesting acquisition of a current program management when, in response to detecting the third splice indicator, it is determined that a third splice state has been countered, wherein the third splice state is based upon a third splice countdown value parsed by the transport packet demultiplexer hardware, and includes the first splice countdown value being a negative value, as specifically recited in the claims.

13. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wine et al. (US# 6,137,834) discloses a method and apparatus for splicing compressed information streams.

Tahara et al. (US# 6,529,550) discloses a coded stream splicing device and method, and coded stream generating device and method.

Gazit (US# 6,298,089) discloses a method for seamless and near seamless audio and non-video splicing of a digital transport stream.

Davis et al. (US# 5,838,678) discloses a method and device for preprocessing streams of encoded data to facilitate decoding streams back to back.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION THIS ACTION IS MADE FINAL**. See MPEP ' 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

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will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

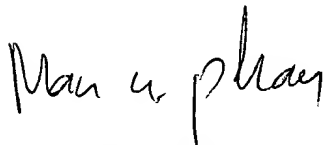
16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (703)305-1029. The examiner can normally be reached on Mon - Fri from 6:30 to 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (703) 308-6602. The fax phone number for the organization where this application or proceeding is assigned is (703)305-3988.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Mphan

03/25/2004.



MAN PHAN
PATENT EXAMINER